

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449B/PTO

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

Date Submitted: February 1, 2006

(use as many sheets as necessary)

**Complete if Known**

Application Number	10/773,753
Filing Date	02/06/2004
First Named Inventor	Robert J. HAMERS
Group Art Unit	4651 1634
Examiner Name	Unknown Robert Crow
Attorney Docket Number	032026-0775

Sheet 1 of 1

**U.S. PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code <sup>2</sup> (if known)			
RTC		2002/0172963		Kelley, et al.	11/21/2002	

**FOREIGN PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document			Name of Patentee or Applicant of Cited Documents	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>
		Office <sup>3</sup>	Number <sup>4</sup>	Kind Code <sup>5</sup> (if known)				

**NON PATENT LITERATURE DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.) date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>6</sup>

Examiner Signature

/Robert Crow/

Date Considered

10/16/2006

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Unique citation designation number. <sup>2</sup> See attached Kinds of U.S. Patent Documents. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449B/PTO  
**INFORMATION DISCLOSURE  
 STATEMENT BY APPLICANT**

Date Submitted: May 5, 2005

(use as many sheets as necessary)

**Complete If Known**

Application Number	10/773,753
Filing Date	02/06/2004
First Named Inventor	Robert J. HAMERS
Group Art Unit	1051 1634
Examiner Name	Robert Crow
Attorney Docket Number	032026-0775

**U.S. PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code <sup>2</sup> (if known)			
RTC		2003/0134267		Kang, et al.	7/17/03	
RTC		2004/0200734		Co, et al.	10/14/04	

**FOREIGN PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document			Name of Patentee or Applicant of Cited Documents	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>
		Office <sup>3</sup>	Number <sup>4</sup>	Kind Code <sup>5</sup> (if known)				
RTC			WO 02/054052		Fish	7/11/02		

**NON PATENT LITERATURE DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.) date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>6</sup>
		<del>International Search Report issued April 6, 2005 on PCT/US03/34286.</del>	

Examiner  
Signature

/Robert Crow/

Date  
Considered

10/16/2006

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Unique citation designation number. <sup>2</sup> See attached Kinds of U.S. Patent Documents. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Form PTO-1449  
(MODIFIED)U.S. DEPARTMENT OF COMMERCE  
PATENT AND TRADEMARK OFFICE

ATTY. DOCKET NO.

032026-0775

SERIAL NO.

10/773,753

OIP  
JUL 12 2004

## INFORMATION DISCLOSURE CITATION

(Use several sheets if necessary)

APPLICANT

Hamers et al.

FILING DATE

02/06/2004

GROUP ART UNIT

1651

## U.S. PATENT DOCUMENTS

EXAMINER INITIAL	REF	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB- CLASS	FILING DATE IF APPROPRIATE
RTC		US 6,159,742	12/12/2000	Lieber, et al.			
		US 6,203,814 B1	3/20/2001	Fisher, et al.			
		US 6,362,011 B1	3/26/2002	Massey, et al.			
		US 6,383,923 B1	5/7/2002	Brown, et al.			
		US 2002/0117659 A1	8/29/2002	Lieber, et al.			
		US 2003/0172963 A1	11/21/2002	Kelley, et al.			
		US 6,495,324 B1	12/17/2002	Mirkin, et al.			
RTC		US 2003/0012723 A1	1/16/2003	Clarke			

## FOREIGN PATENT DOCUMENTS

	REF	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB- CLASS	TRANSLATION	
							YES	NO

## OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

RTC		Elghanian, <i>et al.</i> , "Selective Colorimetric Detection of Polynucleotides Based on the Distance-dependent Optical Properties of Gold Nanoparticles," <i>Science</i> , Vol. 277, pp. 1078-1081, Published 1997.
		Hulteen, <i>et al.</i> , "A General Template-based Method for the Preparation of Nanomaterials," <i>J. Mater. Chem.</i> , Vol. 7, No. 7, pp. 1075-1087, Published 1997.
		Guo, <i>et al.</i> , "Immobilization and Visualization of DNA and Proteins on Carbon Nanotubes," <i>Advanced Mater.</i> , (10) No. 9, pp. 701-703, Published by Weinheim, 1998.
		Wong, <i>et al.</i> , "Covalently Functionalized Nanotubes as Nanometre-sized Probes in Chemistry and Biology," <i>Nature</i> , Vol. 394, pp. 52-55, Published by Macmillan Publishers Ltd, 1998.
		Strother, <i>et al.</i> , "Synthesis and Characterization of DNA-Modified Silicon (111) Surfaces," <i>J. Am. Chem. Soc.</i> (122), pp. 1205-1209, Published by American Chemical Society, 2000.
		Chen, <i>et al.</i> , "Noncovalent Sidewall Functionalization of Single-Walled Carbon Nanotubes for Protein Immobilization," <i>J. Am. Chem. Soc.</i> (123) pp. 3838-3839, Published by American Chemical Society, 2001.
		Nicewarmer-Pena, <i>et al.</i> , "Submicrometer Metallic Barcodes," <i>Science</i> , 294, pp. 137-141, Published by J Am Chem Soc., October, 2001.
		Mbindyo, <i>et al.</i> , "Template Synthesis of Metal Nanowires Containing Monolayer Molecular Junctions," <i>J Am Chem Soc.</i> (124) pp. 4020-4026, Published by American Chemical Society, 2002.
		Zhao, <i>et al.</i> , "Water-Soluble and Optically pH-Sensitive Single-Walled Carbon Nanotubes from Surface Modification," <i>J. Am. Chem. Soc.</i> (124) pp. 12418-12419, Published by American Chemical Society, 2002.
		Baker, <i>et al.</i> , "Covalently Bonded Adducts of Deoxyribonucleic Acid (DNA) Oligonucleotides with Single-Wall Carbon Nanotubes: Synthesis and Hybridization," <i>Nano Letters</i> , Vol. 2, No. 12, pp. 1413-1417, Published by American Chemical Society, 2002.
		Perez, <i>et al.</i> , "DNA-Based Magnetic Nanoparticle Assembly Acts as a Magnetic Relaxation Nanoswitch Allowing Screening of DNA-Cleaving Agents," <i>J. Am. Chem. Soc.</i> , Vol. 124, No. 12, pp. 2856-2857, Published by American Chemical Society, 2002.
RTC		Shim, <i>et al.</i> , "Functionalization of Carbon Nanotubes for Biocompatibility and Biomolecular Recognition," <i>Nano Letters</i> , Vol. 2, No. 4, pp. 285-288, Published by American Chemical Society, 2002.

RTC		"IBM Scientists Develop Carbon Nanotube Transistor Technology," <a href="http://www.ibm.com/news/2001/04/27.phtml">www.ibm.com/news/2001/04/27.phtml</a> , printed on 1/28/2003.
RTC		Baker, <i>et al.</i> , "Covalently-linked Adducts of Single-walled Nanotubes with Biomolecules: Synthesis, Hybridization, and Biologically-Directed Surface Assembly." <i>Mat. Res. Soc. Symp. Proc.</i> Vol. 737, pp. F4.6.1-F4.6.7. Published by the Materials Research Society, April, 2003.
EXAMINER /Robert Crow/		DATE CONSIDERED 10/16/2006
<p>* EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include any copy of this form with next communication to applicant.</p>		